Reveal, J.L. 2014. Two new varieties of *Eriogonum wrightii* (Polygonaceae) from Baja California, Mexico. Phytoneuron 2014-2: 1–3. Published 6 January 2014. ISSN 2153 733X

TWO NEW VARIETIES OF *ERIOGONUM WRIGHTII* (POLYGONACEAE) FROM BAJA CALIFORNIA, MEXICO

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ABSTRACT

Two shrubby members of *Eriogonum wrightii*, E. **wrightii** var. **brevifolium** Reveal, **var. nov.**, and E. **wrightii** var. **linearifolium** Reveal, **var. nov.**, both long-known but heretofore not validly published, are proposed. The first is confined to the mountains of eastern Baja California from Sierra San Borgas and Sierra San Lucas south to Volcán las Tres Vírgenes. The second variety is restricted to Isla de la Guarda in the Sea of Cortez.

Two shrubby expressions of *Eriogonum* Michx. (Polygonaceae Juss.: Eriogoneae Dumort.) were collected in the early 1960s by the late Reid V. Moran (1916–2010) of the San Diego Museum of Natural History and the foremost botanical collector of the Baja California flora for nearly half a century. Known for his wit and his fine collections, Reid was greatly admired by many for his skill as a critical monographer, especially of Crassulaceae, and for his willingness to venture into remote and rarely visited areas of Mexico in search of plants. Over the subsequent years attempts were made to recollect both entities but as is often the case with rare plants in Baja, getting there at exactly the right moment is often not possible. Thus, after knowing of these expressions for some thirty years, and having collected, with Reid, small samples of one, these varieties are presented now so that the names might be used in on-going floristic studies.

Eriogonum wrightii Torr. ex Benth. var. **brevifolium** Reveal, **var. nov.** **TYPE. MEXICO. Baja California Norte.** San Juan Mine, Sierra San Borja, 23 Mar 1960, *R.V. Moran 7891* (holotype: SD; isotypes: DS, RSA, UC).

Allied with *Eriogonum wrightii* var. *pringlei* (J.M. Coult. & Fisher) Reveal of southwestern Arizona and northwestern Sonora, Mexico, but differing in having elliptic leaf blades 0.3–0.7 cm long and 0.1–0.25 (0.4) cm wide (not oblanceolate to narrowly elliptic, 0.7–1.5 cm long, 0.2–0.5 cm wide) and by having involucres 2–2.5 mm long (not 1–1.5 mm long).

Plants shrubs, 3–6 dm tall, 4–8 dm across; ***aerial flowering stems*** lanate; ***leaves*** with petiole bases not forming distinct ring around stem, the blades elliptic, 0.3–0.7 cm long, 0.1–0.25 (0.4) cm wide; ***inflorescences*** dense, the branches somewhat stout; ***involucres*** 1–1.5 mm long; ***flowers*** 1.5–2 mm long, the perianth white to pink; ***achenes*** 2–2.5 mm long.

Other specimens seen. **MEXICO. Baja California Sur.** Above El Terminal, 25 Nov 1961, *Moran 8512* (DS, RSA, SD, UC, US); below El Alamoso, 24 Dec 1963, *Moran 11410* (DS, RSA, SD, UC, US); Cerro la Sandía, 24 Jan 1964, *Moran 11538* (DS, SD); Cataviñcito, 21 Nov 1976, *Moran 23809* (SD, US); N slope of Volcán las Tres Vírgenes, 18 Feb 1973, *Moran & Reveal 20194* (SD, US); Volcán las Tres Vírgenes, 18 Feb 1973, *Moran & Reveal 20212* (MEXU, SD); 2 miles N of Yubay, 23 Feb 1973, *Moran & Reveal 20240* (SD).

The var. *brevifolium* (Latin *brevis*, short, and *folius*, leaf, as to the comparative length of the leaf compared to var. *linearifolium*) may be quickly distinguished by its whitish lanate aerial stems and inflorescence branches, and its short but broad leaf blades. The plant is found in gravelly to rocky soils in desert scrub at 700–1600 m from the Sierra San Borgas and Sierra San Lucas south to Volcán las Tres Vírgenes, Baja California, Mexico.

Eriogonum wrightii Torr. ex Benth. var. **linearifolium** Reveal, **var. nov.** **TYPE. MEXICO. Baja California Norte.** 4 mi SE of Refugio Bay, Isla de la Guarda, 22 Mar 1963, *R.V. Moran 10480* (holotype: SD; isotypes: DS, RSA, UC).

Allied with *Eriogonum wrightii* var. *pringlei* (J.M. Coult. & Fisher) Reveal of southwestern Arizona and northwestern Sonora, Mexico, but differing in having linear to linear-oblanceolate leaf blades, 0.1–0.2 cm wide (not oblanceolate to narrowly elliptic and 0.2–0.5 cm wide) and by having involucres 1.5–2 mm long (not 1–1.5 mm long).

Plants shrubs, 4–8 dm tall, 5–10 (12) dm across; ***aerial flowering stems*** lanate; ***leaves*** with petiole bases not forming distinct ring around stem, the blades linear to linear-oblanceolate, 0.7–1.8 cm long, 0.1–0.2 cm wide; ***inflorescences*** dense, the branches slender; ***involucres*** 1.5–2 mm long; ***flowers*** 1.5–2 mm long, the perianth white to pink or rose; ***achenes*** 1.5–2 mm long.

Other specimens seen. **MEXICO. Baja California Norte.** W of Punta Diablo, Isla de la Guarda, 24 Mar 1959, *Moran 7235* (DS, SD – not in flower).

The var. *linearifolium* (Latin *linearis*, line, linear, and *folius*, leaf, as to the narrow leaf-blade) is readily distinguished from other expressions of the species by its long, narrow leaf blades and its isolated as well as southernmost distribution. It is known only the Isla de la Guarda in the Sea of Cortez.

A key to the varieties of *Eriogonum wrightii* is presented below.

1. Plants loosely to compactly matted herbs.

2. Plants 0.1–0.3 (–0.6) dm tall; leaf blades 0.1–0.25 cm long; involucres 0.8–1.7 (2) mm long; se California ..... 11. var. ***olanchense***
2. Plants 0.5–2.5 (–3) dm tall; leaf blades 0.3–1.2 cm long; involucres 1.5–4 mm long; e and s California, wc Nevada and n Baja California.

3. Inflorescences virgate or cymose; flowers 2–3 mm long; California and Nevada ..... 10. var. ***subscaposum***
3. Inflorescences capitate or nearly so; flowers 3–4.5 mm long; Sierra Juárez and Sierra San Pedro Mártir Baja California ..... 12. var. ***oresbium***

1. Plants shrubs or subshrubs.

4. Flowering stems and branches grayish or whitish lanate to densely tomentose; sw Arizona, se California and nw Mexico.

5. Leaf blades linear to linear-oblanceolate, 0.1–0.2 cm wide; Isla Angel de la Guarda, Baja California ..... 8. var. ***linearifolium***
5. Leaf blades oblanceolate to narrowly elliptic, 0.25–0.9 cm wide; sw United States and nw Mexico.

6. Flowers 3–4 mm long; involucres 1.5–2.5 mm long; achenes 2–3 mm long; plants usually sparsely branched; se California, sw Arizona, ne Baja California ..... 5. var. ***nodosum***
6. Flowers 1–2 mm long; involucres 0.7–1.5 mm long; achenes 1–2.5 mm long; plants usually densely branched; sw Arizona and Sonora, Mexico and in ec Baja California.

7. Leaf blade oblanceolate to narrowly elliptic, 0.7–1.5 cm long, 0.2–0.5 cm wide; involucres 1–1.5 mm long; sw Arizona and Sonora, Mexico ..... 6. var. ***pringlei***
7. Leaf blade elliptic, 0.3–0.7 cm long, 0.1–0.25 (–0.4) cm wide; involucres 2–2.5 mm long; Sierra San Borgas and Sierra San Lucas s to Volcán las Tres Vírgenes, Baja California, Mexico ..... 7. var. ***brevifolium***

4. Flowering stems and branches reddish or greenish tomentose to floccose or subglabrous; widespread.

8. Plants low and prostrate; inflorescences with racemosely arranged involucres; aerial stems and branches floccose to subglabrous; Isla Cedros, n Baja California ..... 3. var. ***taxifolium***
8. Plants distinctly shrubby or if low and spreading then plants not of Isla Cedros.

9. Petiole bases forming distinct ring around stem; leaf blades 0.2–0.6 (–1) cm long, 0.1–0.3 (–0.4) cm wide; s California and n Baja California ..... 4. var. ***membranaceum***
9. Petiole bases not forming distinct ring around stem; leaf blades 0.5–3 cm long, 0.2–1 cm wide; sw United States and Mexico.

10. Leaf blade 0.5–1.5 cm long, 0.2–0.5 (–0.7) cm wide; involucres 2–3 mm long; flowers 3–4 mm long; coastal bluffs n of Enscenada, Baja California, Mexico ..... 2. var. ***dentatum***
10. Leaf blade 0.5–3 cm long, 0.2–1 cm wide; involucres 2–2.5 or 3–4 mm long; flowers 2.5–4 mm long; California to w Texas s to c Mexico.

11. Leaf blades 0.5–1.5 cm long, 0.2–0.5 (–0.7) cm wide; involucres 2–2.5 mm long; flowers 2.5–3.5 mm long; se California to w Texas s to c Mexico ..... 1. var. ***wrightii***
11. Leaf blades 1.5–3 cm long, 0.5–1 cm wide; involucres 3–4 mm long; flowers 3–4 mm long; c and nw California ..... 9. var. ***trachygonum***

ACKNOWLEDGEMENTS

I could fill the rest of the page with acknowledgements, but as Reid has already done this in his famous "I got it there, then" paper in Madroño, I will simply say thank you Reid, you are greatly missed.